

WHAT IS CLAIMED IS:

1. A driving force distribution control device for a vehicle for controlling engaging force of a coupling  
5 mechanism so as to change transmission torque, thereby distributing driving force, said device comprising:

means for continuously changing a torque limiter which limits engaging force of said coupling mechanism, from a limiter value in an ordinary control state according to a  
10 driving state, to a limiter value in a specific control state for protecting a driving force transmission system; and

means for controlling engaging force of said coupling mechanism in said specific control state so as to keep below  
15 the limiter value in said specific control state.

2. The driving force distribution control device for a vehicle according to Claim 1, wherein said specific control state is a control state in which nonstandard-diameter tires  
20 are mounted.

3. The driving force distribution control device for a vehicle according to Claim 1, wherein said specific control state is a control state in which abnormal oil temperature  
25 rise of said driving force transmission system is detected.

4. The driving force distribution control device for a vehicle according to Claim 1, wherein said specific control state is a control state in which abnormal differential  
5 rotation between front and rear wheels, exceeding a preset value for engaging force of said coupling mechanism, is detected.

5. The driving force distribution control device for a  
10 vehicle according to Claim 1, wherein amount-of-change of said torque limiter rate per time increment at transition from said ordinary control state to said specific control state, and amount-of-change of said torque limiter rate per time increment at recovery from said specific control state  
15 to said ordinary control state, are set to mutually different values according to said specific control state.

6. The driving force distribution control device for a vehicle according to Claim 1, wherein amount-of-change of  
20 said torque limiter rate per time increment at transition from said ordinary control state to said specific control state, and amount-of-change of said torque limiter rate per time increment at recovery from said specific control state to said ordinary control state, are set to approximately  
25 equal values according to said specific control state.